VOL. VII. ROCHESTER, N. Y., DECEMBER, 1846. No. 12.

THE GENESEE FARMER:

Issued the first of each month, at Rochester, N. Y., by

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FIFTY CENTS A YEAR:

FIVE copies for $2—EIGHT copies for $3. Subscription money, by a regulation of the Post-Master General, may be remitted by Post-Masters free of expense. ☞ All subscriptions to commence with the first number of the volume.

PUBLICATION OFFICE in Talman's Block, Buffalo street, opposite Reynold's Arcade—where all subscriptions not forwarded by mail should be paid.

POST-MASTERS, and all other friends of Agricultural Journals, are requested to obtain and forward subscriptions for the FARMER. Address D. D. T. MOORE, Rochester, N. Y.

☞ The Farmer is subject to newspaper postage only. ☜

The Close of the Volume.

THIS number closes the seventh volume of the GENESEE FARMER. Whether our efforts to make a paper worth all that it costs, and something more, have been successful, each subscriber will of course judge for himself. We are satisfied with the evidence afforded by the large increase of its circulation, and shall make corresponding additional efforts to render the Farmer worthy of the most extensive patronage. Our terms are so extremely low, that nothing short of tens of thousands of subscribers will enable us to realize a fair living by editing and publishing this journal. Nor can we well employ and pay agents for procuring the names of those that ought to take, read, and sustain a paper devoted entirely to the interests of our rural population. Our dependence is on the public spirit, and patriotism of its readers, to extend the circulation and usefulness of this, the cheapest agricultural work in the Union, and doubtless in the world. Take the whole State together, not one farmer in fifteen either subscribes for, or reads, any agricultural journal whatever. It is now some 17 or 18 years since the GENESEE FARMER was first started; and 12 or 13 since Judge BUEL commenced the publication of the CULTIVATOR, at Albany. Although neither the Farmer nor Cultivator has reason to complain of a lack of patronage, yet all must regret that so large a majority of the tillers of the earth neglect to learn what they may by studying the recorded experience, and observations of other practical agriculturists; and in turn, recording in some periodical for the equal benefit of their brethren, the results of their own experience in rural affairs. To enable Farmers and Horticulturists to teach one another, at the least possible expense, we publish annually a volume of nearly 300 large octavo pages, at 37½ cents a volume where eight copies are taken together. There is not a town in the State that should not receive at least 100 copies; nor is there one where that number can not be circulated by a little effort. The organization of FARMER'S CLUBS, and the enlistment of young men in the noble and honorable work of improving the *race of husbandmen*, as well as their domestic animals, farms and crops, is the direction in which our labors should now be turned.

Young Men of Western New York! will you not lend us your assistance to extend the circulation of the GENESEE FARMER? The cause to which it is devoted is your cause—the elevation of honest, rural industry. Do you wish to rank in the community as men of science, familiar with the unerring laws of Nature; then sustain the earnest efforts of the Editor of this paper to simplify the study of natural phenomena, that all may read and understand the works of God, as displayed in the happy results which He has secured to the labor of all that know, and obey His laws. Our unfathomed mental powers were obviously created for *use*. It is a plain question for us to decide, *what use* we shall make of this, the most precious gift of infinite Wisdon and Goodness? If Heaven has made us social beings, then let us be *social*, and strive to improve the society in which our lot is cast. Let us be willing to learn of others, and to teach what we learn, that we all may be wiser than we now are. Study the great Volume of Nature, for it was written by One that loves his pupils, and will reward them liberally for their diligence in the acquisition of true knowledge.

To our Patrons.

CONSIDERING the price at which it is afforded, the present volume of this journal contains an unusual amount and variety of useful and interesting matter, in both departments—and likewise over *fifty engravings* of Improved Implements, Farm Buildings, Domestic Animals, Fruits, &c. It is far the *cheapest*, (if not the *best*,) Agricultural Paper now published. If any doubt the truth of this assertion, let them examine the Farmer, and compare it with other similar journals.

We wish, and intend, to make the ensuing volume of the Farmer superior, in many respects, to the present. Our facilities for its publication in a neat and proper style will be greater than heretofore, and we shall avail ourselves of every appropriate means to render the GENESEE FARMER worthy of the confidence and earnest support of an intelligent and enterprising community. [See Prospectus, &c., on last page of this number.] M.

Wheat Culture.

NUMBER TWO.

How *can one best increase the elements of wheat in soils where such elements are lacking*?

This is a question of great practical moment. To show, in the first place, what one acre of land can do, where Science has supplied it with each element used by Nature in forming this invaluable plant, so far as such elements were lacking in the soil, we ask the reader's attention to the following facts:

In part VIII, vol. 2, page 206, Mr. Colman says: "It is well attested that a crop of wheat grown in Norfolk county in the same year (1845) produced 11 quarters, 2 bushels, 3 pecks per acre, that is to say, 90 bushels, 3 pecks per acre."—The evidence of the truth of this statement being satisfactory to the Royal Agricultural Society, its Council directed Prof. Playfair to make a critical analysis of the soil that produced this remarkable crop. He did so, with the following result:

Organic matter,	2.43
Hydrate water,	2.60*
Carbonic acid,	0.92
Silica,	81.26
Per oxide of Iron,	3.41
Lime,	1.28
Alumina,	3.53
Sulphuric acid,	0.09
Phosphoric acid,	0.38
Magnesia,	1.12
Potash,	0.80
Soda,	1.50
Chlorine,	a trace.
Loss on analysis,	0.63
Total,	100.00

In so small an amount as 100 grains, this soil shows an appreciable quantity of each element, (14 in number,) found in perfect wheat plants. And yet, more than four-fifths of the soil is nothing but silica, or pure flint sand. The proportion of silica is about the same as we find in our best wheat soils in Wheatland. It differs from them in containing more *soda*, *potash*, and *phosphoric acid*; while the amount of lime, magnesia, alumina, oxide of iron, and chlorine, correspond very exactly with the results of our own analyses. We have, however, never so small an amount of organic matter (vegetable mold) as 2½ per cent. The fact that over 90 bushels of wheat can be grown on an acre with so little organic matter in the surface soil as 2.43 per cent., is worthy of mature consideration by those that desire to prepare their land for producing large crops of wheat at the least expense. It is not *vegetable*, but *mineral* matter that our soils lack to give a large yield of plump wheat. An abundance of mold will increase the growth of *straw*, but not of *grain*. To promote the growth of the latter, no one thing is so valuable, as a general rule, as that of *bones boiled to a powder in strong lye*. To this the addition of gypsum and common salt will be of great service. The phosphate of lime contained in bones is an indispensable ingredsent in forming the seeds of the wheat plant. The gluten in this grain contains sulphur, which the sulphate of lime (gypsum,) will furnish. The plant also needs potash, soda magnesia, and chlorine; all of which the common salt, and ashes leached to obtain lye, will supply. The liquid excretions as well as the dung of animals abound in elements most useful in forming wheat. But an excess of manure will be ruinous to the crop. And *why* this is so, let us now consider. Suppose, for an experiment, one should make 2000 lbs. of ripe wheat, including both straw and grain, into a heap of manure for feeding a second crop of wheat plants. Let this manure be spread over the ground eight or ten inches deep, so that the plants would have to organize their tissues, seed, &c., from the appropriate elements contained in the manure. Could a large yield of good seeds be thus grown? We think not. Why not? Every thing the kernels of wheat need, as well as all that the stems and leaves require, would be present in great abundance. The difficulty is this: Nature designs that this plant shall derive from the *atmosphere*, through the medium of its roots and leaves, a large portion of the carbon, nitrogen, oxygen, and hydrogen, used in organizing its seed.—Hence, to feed wheat plants with an excess of these elements in rotting manure, is to inflict a *surfeit* and *disease* upon the same. All organized beings, whether vegetable or animal, may be injured, more or less, by having an excess of nutritious matter thrown into their circulating systems. Wheat can endure this surfeit far less than corn, oats, or barley. There is a *natural limit* beyond which we can not force any plant or animal, by the use of its most appropriate food. But in regard to wheat culture, we are far behind the maximum of product consistent with the highest profit. Something can be gained on most farms, by the droppings of domestic animals, applied directly to wheat fallows. They are not generally too rich for a dose of barn-yard manure; especially if it be well rotted, and contain an admixture of gypsum, salt, ashes, and lime. Don't spare the clover seed, the plaster, nor the leached ashes, where you wish to enrich your soil.

Most farmers, in our judgement, sow too little seed per acre. They seem to have too many acres to do full justice to each rood of land.—Having contrived, some how, to obtain possession of a large surface, they appear too poor in ready money, to prosecute their business to the best advantage. Pride and avarice in agriculture, as in other pursuits, over-reach themselves. Less capital in land, and more in ready cash, would effect a change most advantageous to more than one reader of our paper. The great objection to buying the things required to form good crops of wheat, is the want of funds for that pur-

* Water not driven off at 212° of heat.

pose. Many would purchase more clover seed, timothy seed, gypsum, salt, ashes, lime, bones, &c., if they had less land and more money. If they had fewer acres to fence and cultivate, they would buy more rails, and better farm implements. It is not often that we tell our friends of their faults; and we hope now not to give offence. There are some wounds that require to be probed a little, before they will heal soundly at the bottom. We are thoughtlessly driving too many young men out of New York, who have been born and raised in the State, by a pernicious practice of adding farm to farm, to be cultivated by foreigners, either as hirelings, or tenants. We do not object to foreigners coming among us to work at any pursuit whatever. We object only to the expulsion of the best talent, the noble enterprise, the pride, and hope, of the Commonwealth, because a foolish spirit of land monopoly denies them soil to cultivate in New York on such terms as Humanity and Virtue deserve.

We do not consider these remarks as out of place. It must be borne in mind that in very many of our most fertile towns, our rural population is on the *decrease;* and the character of the inhabitants is undergoing a rapid change, by the removal of young men, and the incoming of other persons from abroad. Let as many come in from abroad as will.

We shall undertake to show, at another time, that money earned in Western New York, can be more profitably employed here in growing wheat for New York and Boston markets, than at any point west of the State. Still, this fact by no means justifies that craving spirit which grasps at all the land that joins the estate where it frets and chafes a lump of living clay. Small, well tilled, and highly productive farms, occupied by an intelligent, virtuous, and independent people, is just the condition of the society that we desire to witness. The greatest good to the largest number, is our motto. When this maxim shall be acted on in good faith by the community, the wheat and corn fields of the Empire State will produce twice as much as they now do; and a double population will be twice as comfortable and happy as is now seen by the traveller in going from tide water to lake Erie.

Sheep Husbandry on the Prairies.

A correspondent writing from Lafayette Co., Indiana, asks for information on the subject of keeping sheep on the praries, in regard to shelter in the winter, the value of wild grass after autumn frosts, &c.

We have spent only two winters on the prairies in Illinois, and then in the latitude of St. Louis; but we have often visited the State in the winter season. A prairie range for cattle or sheep is nearly worthless, after cold weather has fairly set in. Both alike need other forage than wild grass, as well as good shelter to protect them from the strong, cold, and almost continous winds of that vast, open country. In southern Illinois and Indiana, where there is more timber, and the climate is naturally milder, less attention need be paid to guarding against the inclemencies of the seasons. But even there cold rains, sleet and snow are quite too severe on sheep for them to be out with impunity. Sheds are uncommon, but clumps of trees, and dense groves serve as substitutes which are better than nothing. Red clover does not take readily and grow well; but turnips, blue grass, timothy, oats, peas, beans, corn, &c., make excellent food for sheep. White clover is indigenous on the banks of the Little Wabash river. At Albion, in Edwards county, are flocks of Merino sheep that have been kept for 30 years, 6 or 8 months each year, on wild prairie grass, and have continued in good health and vigor. The progenitors of these sheep were imported by wealthy Englishmen, who purchased and settled a large tract where the village of *Albion* is located, at the close of the war in 1815. The quality of the wool of these fine Spanish sheep has not deteriorated, although Albion is a little south of the latitude of Washington city. The writer of this knows of no better country for wool growing than southern Illinois, if one is proof against fever-and-ague.

Any quantity of choice land can be had at Congress price, both timber and prairie. Much of this land is high rolling prairie, and makes capital sheep walks. They need a shepard, however, to protect them from the depredations of the little, mean prairie wolf, and from dogs, which are meaner still. The climate is the same as that of St. Louis, and most admirably adapted to the growth of apples, pears, peaches, and grapes. The society is not so good as it might be; consisting mainly of persons too poor to hold slaves in Virginia, Kentucky, and Tennessee, who have emigrated north to settle on Congress lands.

Useful to the Ladies.—One of the most important of all household duties, is to keep the door knobs, the lamps, the spoons, the plates, "and all that sort o' thing," in brightly polished order. If instead of the chalk, and preparations, ladies will use camphene oil and rotten stone, a far brighter, more durable and quicker polish can be obtained than in any other way.—Camphene is the article used for producing the exquisite polish of the daguerreotype plates, and nothing has ever been found to equal it.

Cough in Horses.—The boughs of the common cedar, cut fine, and mixed with the food of horses, are said to be an effectual remedy for the troublesome and very prevalent disease called "cough."

The Study of Agriculture.

CHAPTER I.

What is Agriculture?

1. Agriculture is both an Art and a Science.

What is the *art* of agriculture?

2. The *art* of agriculture consists in the skillful application of manual labor to the cultivation of the earth.

What is the *science* of Agriculture?

3. The *science* of agriculture has for its object the investigation of those Natural Laws, and changes in Matter, by which it is *organized* into the bodies and products of cultivated plants, and domestic animals; and again dissolved into its original elements, after vitality has ceased to influence the condition of the various substances with which it has been associated.

What distinguishing feature characterizes all Natural Laws?

4. They are distinguished by the *uniformity* and *certainty* of their operations. Hence, if we study them thoroughly, and *once* learn their peculiarities, the knowledge so attained will be true, and available, during the balance of our lives.

What is *one* of the most important Laws, which control the production of all cultivated plants?

5. It is that Law, which renders it impracticable to organize any vegetable, *without a supply of the precise things that Nature uses for making the whole substance of such vegetable.*

What are the *things* used in forming the bodies and products of all cultivated plants?

6. If we consider them as *binary* compounds, i. e. compounds of two simple substances, they are thirteen in number, and they have the following common names: *Water; Carbonic acid; Ammonia; Silica; Alumina; Lime; Potash; Soda; Magnesia; Oxide of Iron; Sulphuric acid; Muriatic acid;* and *Phosphoric acid.*

Do cultivated plants contain no other elements than such as exist in the compound bodies above named?

7. None of any practical importance. There is occasionally found in their ashes, a little of the metal called *manganese;* and animals that live on vegetables extract from the same the *fluorine* which is formed in the *enarmel*, or glassy covering, over the exposed surface of their teeth.

If *water* be a compound substance, what are its constituent elements?

8. The constituent elements of water are *oxygen* and *hydrogen*, combined in the proportion of *eight* parts by weight of oxygen, to *one* of hydrogen.

What is *Oxygen?*

9. The term is derived from two Greek words that signify "to make *sour;*" "to form *acidity;*" because this simple element naturally unites with many others and forms most biting acids, like *aquafortis.* When pure, oxygen is an invisible *gas*, without taste or smell, having all the mechanical properties of atmospheric air, of which it forms 21 parts in 100.

Does *oxygen* exist in nature, in other forms than those of a *liquid* in water, and of a *gas* in the atmosphere?

10. It does. In 100 pounds of *silica*—pure flint sand—there are 52 lbs. of oxygen combined with 48 of a simple element called *silicon*, or *silicium.* Nearly one half of the weight of granite mountains is nothing more than oxygen in a solid form; while it constitutes eight parts in nine in all water, vapor, ice, and snow.

Is this substance known by any other name than that of *oxygen?*

11. It is; being often called "vital air," from the circumstance of its supporting the respiration of all animals. It also supports combustion, by uniting chemically with the body consumed.

What do you mean by the *chemical union* of two or more bodies?

12. *Chemical union* is distinguished from *mechanical* union by the circumstance that, a *new* and *fixed* compound is formed by chemical union, which differs in its properties from each of its constituents. Thus *water* is as unlike either oxygen or hydrogen *gas* in all its properties, as it well can be. It occupies less than a thousandth part of the space filled by these gases before their chemical union to form water.

Is there any known law that governs the combination of simple and compound bodies?

13. There is. All elements that combine chemically at all, do so in *definite proportions.*

Will you illustrate this law?

14. Take 8 grains of oxygen gas and mix with it 1 grain of hydrogen, in a clean strong glass vessel. These gases can be set on fire by an electric spark, and will explode with some violence, but not enough to break stout glass, and form 9 grains of water. If 11 grains of oxygen are used instead of 8, only 8 will combine with the hydrogen; 3 grains will remain unaffected. If 2 grains of hydrogen are used to 8 of oxygen, 1 grain only will combine.

What important practical effect has this law of definite proportions?

15. It gives a fixed and uniform character to all chemical compounds. Hence, water, although a binary substance, possesses all the advantages of a simple element, in connection with those of a chemical compound.

Can water be decomposed, and its elements separated?

16. It can be very easily, by the use of a little iron filings, sulphuric acid, and a quart glass bottle. 2 ounces of iron filings, 1½ ounces of the acid diluted in 8 ounces of water, and put into the bottle, will decompose water, disengage, and expel from the bottle, *hydrogen* gas. By perforating a cork with a pipe stem, and placing it in the bottle, the gas will pass through the small aperture in the stem, and may be set on

fire. It burns with a feeble, and almost invisible light in the day time.

How do you know that the gas given off comes from water?

17. Because neither the sulphuric acid, nor iron contains a particle of hydrogen; and water does.

What becomes of the oxygen in the decomposed water?

18. It unites chemically with the iron filings and forms a compound called *oxide of iron.*—With this oxide the acid combines chemically and forms the salt called *copperas,* or *sulphate* of iron. When the hydrogen gas that escapes from the bottle in the manner described, is burnt, what *new* compound is formed with this inflammable gas?

19. No other compound is formed than that of *water.*

How will you demonstrate the fact that, water is formed when hydrogen is burnt in the air?

20. By placing a glass tube an inch in diameter and 30 inches long over the burning gas, *vapor* will be condensed on the inside of the tube, although quite dry at the beginning of the experiment. The term *hydrogen* is derived from Greek words that signify, "I form water." Water can not be formed without hydrogen.

What are a few of the distinguishing characteristics of *hydrogen?*

21. It is the lightest body in the world that can be weighed; being 15 times lighter than common air, and 16 times lighter than oxygen. It was formally used to inflate balloons. It is invisible and devoid of taste and smell.

If oxygen is 16 times heavier than hydrogen, and 8 parts by weight of the former unite with 1 of the latter to form water, must not *two volumes* of hydrogen combine with *one* of oxygen to give the relative weight of these elements, as 8 to 1?

Certainly. Let 1 cubic inch represent 1 of hydrogen, thus—

H.	O. 8
1	

and half a cubic inch will represent 8 of oxygen. The two make one of water, whose equivalent number is 9.

Do all chemical compounds have a *fixed equivalent number?*

23. They do; as will be abundantly shown in the course of our Study.

Do the gases oxygen and hydrogen ever combine without forming *liquid* water?

24. They do; and instead of forming *water* they make gaseous steam.

In that case is there any *condensation* of the volumes of the oxygen and hydrogen at their chemical union?

25. There is. The condensation is just equal to one third of the bulk of the two gases, i. e. the whole volume of the oxygen is merged into that of the hydrogen.

When a cubic foot of water is expanded into steam, how many cubic feet will the latter fill?

26. 1696.

When a quart of water is made into steam, at the temperature of boiling heat (212°) and the steam condensed in water at 62°, how many quarts will it heat up to the boiling point?

27. About 6⅔ quarts.

How will you explain this phenomenon, seeing that the steam when tested by a thermometer is no hotter than boiling water?

28. If we place over a steady fire—that of a spirit lamp is best—water in a thin glass basin, its temperature will gradually rise till it reaches 212° when it boils, and the water becomes no hotter, but ebulition continues so long as any water remains. Let us suppose that the temperature of the water was 62° when placed over the fire; and it took a steady heat 6 minutes to boil it. The gain in temperature in 6 minutes was the difference between 62° and 212°, or 150.—This divided by 6, and it is seen that the gain was equal to 25° a minute, for 6 times 25=150. With the same uniform heat from the lamp, it will take 40 minutes to evaporate all the water. 40 multiplied by 25° (the amount of heat imparted to the water in each minute,) give 1000° of heat as the sum total acquired by the steam. To raise the temperature of a quart of water at 62° up to 212°, will take 150° of heat. But it has been demonstrated that, although steam shows by the thermometer only 212° of heat, it has received 1000°, and when condensed, will raise as many quarts from 62° to 212 as the difference (150) is contained in 1000; which is 6⅔ times.

In what condition do these 1000° of heat exist in steam, that a thermometer shows no more than 212°?

29. In the condition of *latent* or *hidden* heat. I have stated the fact that, water in being changed into steam, expands to 1696 times its former volume. It is an important natural law that, the capacity of a body to hold insensible heat is increased as it passes from a denser to a rarer or thiner medium. Steam is a vastly rarer medium than water; and in making the transition, it renders a large amount of sensible heat insensible, or *latent.* All this is made sensible again, when steam, or any other body is condensed.

Water is a rarer medium than ice. Will you pretend to say that water at 32° in freezing into ice at the same temperature, gives out sensible heat?

30. Certainly I do. It gives out no less than 140°.

How can you prove that?

31. Dissolve a pound of ice at 32° in a pound of water at 172°, and you will have 2 lbs. of water at 32° instead of 102°, the mean of 32° and 172°. This simple experiment demonstrates that ice in liquifying absorbs 140° of heat and hides it, which of course it will give out on freezing.

Is there any other similar instance where the

solidifying of water changes insensible into sensible heat?

32. There is. Pour cold water on well burnt caustic lime, and it will disappear, being solidified, and chemically combined with the lime, to form a *hydrate* of that mineral. In this operation heat enough is often evolved from cold water to set wood on fire.

What is the weight of steam, as compared with that of atmospheric air?

33. It is 38 per cent. lighter. Air being 1000 steam is 620.

At what temperature does water occupy the smallest space?

34. At 39½ degrees. It is an important law, which so modifies the arrangement among the particles of matter in water, that it *expands* in the same ratio on being cooled below 39.5°, even after it is frozen into solid ice, that is witnessed when its temperature is raised above 39.5° to any number below 212°. Thus water at 32° and 47° fills equal volumes.

When water at 32° is solidified into ice at the same degree, how much larger space does the ice fill than that occupied by the water?

35. About 5 per cent. 100 cubic inches of water, on freezing, make 105 cubic inches of ice.

Is the expansive force of water, while chrystalizing, very great?

36. It is. This prodigious mechanical force plays a very conspicuous part in *disintegrating* solid rocks, and other minerals.

What are we to understand by the *disintegration* of any solid substance?

37. Take a lump of hard chrystalized sugar, and *crush* it by any mechanical force, and you will *disintegrate* its particles; and by so doing, greatly increase the solubility of the sugar. The freezing of a compact lump of clay, separates all its particles, and greatly favors the solution of the salts in this lump of earth, which nature uses in the organization of plants. *Heat* and *Cold* are very important agents in the economy of Nature; and their action on the material elements of the world should be studied with the utmost care.

How will you account for the cooling of the air in a room by sprinkling water on the floor in a warm day?

38. As the water evaporates, it renders a large amount of the sensible heat in the atmosphere latent or insensible, which heat is indispensable to retain water in its expanded condition of vapor. The radiation of heat from the surface of the earth, and from mountains, its interception by clouds, the capacity of the atmosphere to hold vapor in a gaseous form, and its condensation into dew, rain, and snow, will be fully investigated under the appropriate study of *Meteorology*.

Suppose water in lakes and rivers had continued to contract in volume when cooled below 39½ degrees, as it does from 212° down to that point; what would be the effect of such a law?

39. Most disastrous to all land animals and plants in all the regions of the earth, where winter and frost prevail to any extent. Water and ice are good non-conductors of heat; and by retaining a covering of ice, and of water below 39½ degrees on the surface of rivers and lakes in winter, the escape of heat from the mass of water below is prevented. It is by this means that the fluidity of water is preserved in the coldest weather.

Suppose Providence had so arranged the particles of ice as to render it 5 per cent. *heavier*, instead of being 5 per cent. *lighter* than water, what would be the effect?

40. The ice would sink at once to the bottom of the stream or lake as fast as formed; and the whole body of water would soon become a solid mass of ice, which, in many cases, the heat of a whole season could not melt again.

How will you account for the large cracks in ice on rivers, ponds, and lakes?

41. They are made by the remarkable influence of heat, which *contracts* ice, after severe freezing, and opens seams, just as heat in summer opens cracks or fissures in stiff clay. On lake Erie, wide fissures in the ice are often formed by its contraction in spring, which being filled with snow evenly over the surface, present to the traveller dangerous and unseen cavities.

Are the *wisdom* and *goodness* of Providence strikingly displayed in the laws that regulate the action of heat and cold on water, ice, and vapor?

42. They are. The heat of summer would often be insupportable had not God so arranged the elements that both vapor and plants absorb and fix a greater or less quantity, according to the intensity of the heat. The latent heat in vapor is soon given out to check the too severe cold at night by the radiation of heat from the earth's surface; while the latent heat stored up in the organized carbon and hydrogen of plants, may be kept indefinite ages, for the use of reasoning, accountable Man. Twenty millions of tons of coal are annually taken from the bowels of the earth in Great Britain, every grain of which contains latent heat that was absorbed from an overheated atmosphere tens of thousands, if not millions of years, before man was created on this planet. This latent heat thus long stored up by Providence, now warms millions of our race, cooks their food, and performs the mechanical labor, through the agency of steam, of a vast, and indefinite number of working men. That mineral coal is of *vegetable* origin, all that have investigated the subject now admit. And that forest trees, and all plants, absorb and fix heat, which is evolved when they are consumed by fire, or in animals, are facts, the truth of which few will deny, after they have studied with the Author, the *Physiology* of cultivated plants, and domestic animals.

The FARMER'S AGRICULTURAL CHEMISTRY, compiled from the best authors, and adapted to the use of Schools. By M. M. RODGERS, M. D., Lyons, N. Y.

We received a copy of a little 18 mo volume of 100 pages, with the above title, some time since; but not being able, in justice to our readers, to commend the work, in kindness to the young author, we preferred to let it pass without notice. Another copy has been sent us by a friend of the compiler, with a note, which in courtesy compels us to say something of the book. Of the 94 pages beyond the Introduction, 40 are taken bodily from other works; and 54 are compiled mainly from the writings of Von Thaer, Bergman, Chaptal and Davy, selecting from these old authors, with singular infelicity, such views on agricultural science, as have become obsolete by reason of more recent discoveries. Speaking of nitrogen, on page 10, the author says: "It exists in all animal substances, and many vegetables: it may be obtained from *phosphorus*." There are no less than three mistakes in this brief sentence. Every tyro in chemistry knows that pure fat is an "animal substance," and that it contains not a particle of nitrogen. The remark that "many vegetables" contain it, leaves the reader to infer that some plants are destitute of this element; which is not true. Nor is it true that phosphorus (which is itself a simple element,) contains nitrogen, or that the latter "may be obtained" from the former.

On the next page, to fix ammonia, in dung heaps, the author, following Chaptal, recommends the application of copperas and oil of vitriol. This was good husbandry in France and England 40 years ago; but since it has been discoverad that *gypsum* is quite as good for that purpose, and it can be had at one tenth the cost of copperas, or sulphuric acid, it is plain which should *now* be recommended to farmers for fixing ammonia.

There is a chapter devoted to the "organs o plants;" yet nothing is said in regard to the circulation of sap from the roots to the leaves, and from the leaves to the roots again. This is like acting the play of Hamlet, with the part of Hamlet left out!

No department of chemistry is more valuable in small affairs than that which illustrates those changes in organized substances which go by the name of "fermentation." On this subject our author has just two sentences, the leading one is in these words:

"Fermentation is a peculiar decomposition or transposition of the elements of a complex organic substance, by the agency of some external force, different from ordinary chemical attraction, as heat, air, or contact with some other body similarly affected." The other sentence simply remarks that there are several kinds of fermentation, as the "saccharine," "vinous" "acetic." And this is all the pupil is to learn of "fermentation" from a book, "adapted to the use of Common Schools"!

Chapter 4 treats of "Rocks, and the formation of Soils." From what work the author's remarks are compiled, it is difficult to surmise; for he says *primary*, as well as other rocks are arranged in *strata* or *layers*. The whole chapter abounds in errors, showing that his authorities belong to an antedeluvian age in geological science. If we are to credit this book, "one of the most productive soils in Sweden" contains only three minerals "silica, alumina and carbonate of lime;" as though wheat and other plants can grow without potash, soda, magnesia, sulphur, phosphorus, iron or chlorine! This statement is made on the authority of Bergmann who wrote before analytical chemistry was born. "Alumina is said to be the principal ingredient in clay." This remark would pass for truth 20 years ago; but now it is known to be almost impossible to find a clay soil which has one tenth of its weight of alumina. Again it is stated, (page 43,) that a "soil which contains 70 per cent of sand is not adapted to wheat, but with sufficient manuring may produce *barley*." This was the opinion of Von Thaer in the last century. We have shown in another article in this paper that 90 bushels of wheat have been grown on land containing over 80 per cent of silica.

On the subject of manures the authors says: "As the carbon and nitrogen are derived from the atmosphere, the benefit of manuring consists *exclusively* in the supply of the SALTS and soluble *earthy matters* essential to the developement of the plants." This remark is taken from Petzholdt, if our memory serves us, for no credit is given. It carries *theory* farther than facts and experience will warrant.

Our criticism might be extended to any length without exhausting the subject; but it is unnecessary to go farther. Had the author taken up Johnston's Lectures on Agricultural Chemistry and abridged the work to one third of its present size, and adapted it to the use of Common Schools, it would have commanded an extensive sale as a school book, and great good would have resulted from the labor. But to compile a good work from many authors implies a critical knowledge of all the sciences discussed, to discriminate accurately between *truth* and *error*. In his Preface the author says: "I expect to escape any *unfair* criticism inasmuch as my book is a compilation, and I claim no originality."—We trust he will not regard our criticism as "unfair," for it is with extreme reluctance that we have taken the trouble to point out a few of the defects in the book. Dr. Rodgers has considerable talent, but misjudges in attempting authorship, before he had studied for years, and fully mastered his subject. The cheap and easy method of making books by the use of *scissors* instead of *study*, is the way to destroy,

not to build up the literature of this country.—We are well aware that to toil in the field of agricultural literature at this time, one must work for nothing, and find himself. If Dr. R. cannot afford to do this, he will find his new profession any thing but a pleasant one.

The time will come however when talents and labor employed in this department of knowledge will command ample remuneration. To hasten the arrival of that era, great care should be taken not to impose on the public, already too suspicious in regard to agricultural works, any that will not stand the test of the most searching investigation. We insist on the point that, the *profession* of agricultural science will ever continue to be utterly worthless in this country, so long as *every thing* is permitted to assume the name, and pass as current coin in the agricultural journals of the United States. We know as well as any one can tell us that, to speak the truth plainly is to inflict pain, where we should rejoice to give unmingled pleasure. But, we have a duty to perform in this matter that must be faithfully discharged although no one may be gratified, and many may feel that their personal friend has sustained injury at our hands.

Steep for Wheat.

We copy the following from the last number of the London Mark Lane Express. We regard the practice recommended as important:

Sir,—In reply to your "Old Subscriber," I beg to say that I have used a solution of blue vitriol, (sulphate of copper) as a steep for seed wheat for the last sixteen years, and never have had smut. For every six bushels of wheat, dissolve two pounds of blue vitriol in five gallons of water; the wheat being shot on the floor (mine is of brick,) let the solution be gradually thrown over the wheat, turning it with shovels three or four times, till every grain be thoroughly saturated; the last time of turning, let the heap remain upon the highest part of the floor, and in a conical form; if this be done in the afternoon, the wheat will be quite ready for drilling the next morning.

The quickest way to dissolve the vitriol is to place it in a pail, add one or two quarts of boiling water, let it remain two minutes, strain the solution into a tub sufficiently large for the purpose, add more boiling water to the vitriol, strain off again, and so on till all be dissolved; then add cold water to this strong solution, sufficient to make the quantity required.

I am, sir, your obedient servant,

East Surrey.

Gatwick, Crawley, Sussex Co., Oct. 21.

P. S.—In order that the determined quantity to be drilled per acre may be ascertained, the seed wheat after preparation should be measured in the morning, in order to find how much the bulk has increased.

New York State Agricultural Society.

Minutes of the Meeting of the Executive Committee of the N. Y. State Agricultural Society, held at their rooms, in Albany, on the 12th day of November, 1846.

Present—Mr. Sherwood, Mr. Vail, Mr. Stevens, Mr. Tucker, Mr. McIntyre.

The proceedings of the last meeting being read, the following was offered by Mr. Vail:

Resolved, That the minutes be accepted. Passed.

The following were offered by Mr. Tucker, of Albany.

Resolved, That the thanks of the N. Y. State Agricultural Society be presented to F. E. L. Fischer, Director of the Imperial Botanic Garden, at St. Petersburgh, Russia, for the donation announced in his letter just read, and that a copy of the transactions of this Society for 1845 be forwarded to him. Passed unanimously.

Resolved, That the thanks of the Society be presented to its President for a copy of the Census of the State of New York, for 1845. Passed.

Resolved, That the thanks of the Society be presented to Joseph Fellows, Esq., of Geneva, for his donation of fifty dollars in behalf of the Pultney estate. Passed.

By Mr. Vail, of Rensselaer County:

Resolved, That the Recording Secretary and Treasurer procure Daguerreotype portraits of all the Presidents of the N. Y. State Agricultural Society, and that the Treasurer be authorised to pay for the same. Carried.

By Mr. Sherwood, of Cayuga:

Resolved, That the Treasurer of the Society be directed to keep charge of the rooms of the Society and provide for its being kept open for the transaction of the business of the Society, until further action of the Executive Committee. Passed.

By Mr. Vail:

Resolved. That the President, Mr. Prentiss and Mr. McIntyre be authorised to invest in Bond and Mortgage such sums of money now in the Treasury as will not be needed to pay premiums already awarded, and to pay also contingent expenses of the Society. Carried.

By Mr. Sherwood:

Resolved, That the Treasurer employ some competent person to color the plates of the "Jardin de St. Petersburgh."

By Mr. Vail:

Resolved, That the thanks of the Society be presented to James Lennox, Esq., for his donation of 30 numbers of "Washington's Letters on Agriculture."

By the President:

Resolved, That the thanks of the Society be presented to Mr. Geo. Fordon for the spirited manner that he has shown in breeding and exhibiting at our several shows so many fine farm horses.

The Committee then adjourned till the *second Thursday* of December ensuing.

Large Calf.—The Madison Democrat gives the following indication of the success (in one branch of husbandry, at least,) of one of our permanent subscribers:

"Sandford P. Chapman, near Clockville, in this county, has a heifer calf seven-eights Durham, which according to a certificate shown us, weighed on the 31st inst. 640 lbs.; its age being but a few days over seven months."

New Year's Cake.—Seven pounds of flour, two ponds and a half of sugar, two pounds of butter, and a pint of water, with a teaspoonful of volatile salts dissolved in it. Work the paste well; roll it thin and cut it in small cakes, with a thin cutter; lay them on tin plates in a quick oven, for fifteen minutes.

To Correspondents.

Communications have been received during the past month from S. W., D. A. Ogden, L. B. Langworthy, A Plow-holder, M., H., W. S. T., R. J. Jones, Aaron Tufts, Israel A. Beach, G., Wm. R. Prince, State Agricultural Society.

Hints to Farmers.

There are some things that all Farmers ought to know.

Sheep put into fresh stubble are apt to be killed by eating too much grain.

A bare pasture enriches not the soil, nor fattens the animals, nor increases the wealth of the owner.

One animal well fed is of more value than two poorly kept.

The better animals can be fed, and the more comfortable they can be kept, the more profitable they are—and all farmers work for profit.

Ground once well plowed is better than thrice poorly.

Bountiful crops are more profitable than poor ones. Make the soil rich, pulverize it well, and keep it clean, and it generally will be productive.

Weeds that grow unmolested around the fences, stumps and stones, scatter their seeds over the farm, and are very likely to grow.

Cows well fed in winter give more milk in summer. An ox that is in good condition in the spring, will perform more labor, and stand the heat of summer much better than one that is poor.

When you see the fence down, put it up; if it remains until to-morrow the cattle may get over.

What ought to be done to-day, do it, for to-morrow it may rain.

A strong horse will work all day without food, but keep him at it, and he will not last long.

A rich soil will produce good crops without manure, but keep it at it and it will tire.

Farmers sons had better learn to hold the plow, and feed the pigs, than measure tape and count buttons.

Young ladies who have the good fortune to become farmers wives will find it more profitable to know how to make Johnny cake, butter and cheese, than to play on the Piano.

All who wish to be rich, must spend less than they earn. G.

To Preserve Eggs.—The following is the simplest mode we have met with. First a layer of plaster, then a layer of eggs—not allowing one egg to touch another; with the *small* end downward. Over the layer of eggs put about three inches of plaster; then cover the vessel closely. Eggs thus put up have remained sweet and pure for eleven months. They must be put down within three or four days of being laid.

Remedy for Scours in Horses.

Mr. Editor:—I will give you a sovereign remedy for the scours in horses, and if you think it worth any thing, or nothing, do with it as you please.

When the animal is attacked give him physic; motherwort is the best. Boil it to a strong lie. Give the animal three pints for one dose. After it operates freely, give the horse two quarts of clean loam, mixed with pure cold water, as thick as pan cake batter. The fever that always attends the complaint will induce the horse to drink. Repeat the dose once in two hours. It never fails to perform a perfect cure.

Never give physic after the complaint is checked. The loam will not harm the horse.

Yours, &c. Iba Young.

Conquest, Cayuga Co., 1846.

Polish Honey.—Poland is perhaps the greatest honey producing country in Europe. In the provinces of Podolia, Ukraine, and Volhynia, in particular, the cultivation of the honey-bee has long formed an object of national importance; and these bee gardens are not only very numerous and extensive, but they are also common in other parts of the Kingdom. There are cottages in Poland, with very small portions of land attached to them, on which are to be seen as many as fifty hives; while there are farmers and landed proprietors who are in possession of from 100 to 10,000 hives! There are some farmers who collect annually more than 200 barrels of fine honey, each barrel weighing from 400 to 500 lbs. exclusive of the wax. A tenant is often in this way enabled to pay his rent and taxes, to defray other domestic expenses, and often to accumulate handsome dowries for his daughters.

Water Proof Recipe—*Either for boots or other leather.*—One pint Tanner's oil, half lb. tallow, a lump of rossin size of a shell-bark, Burgundy pitch size of an egg, beeswax size of an egg, lamp-black three cents worth, all mixed together; and gradually melted over a slow fire. When to be applied, the mixture should be made about milk warm, and put on with a sponge.—The leather to be made a little damp, but not wet.—*Farmer's Cabinet.*

"Honor to whom Honor."

Mr. Editor:—A notice in Saturday's American states that the Albany Cultivator for October contains the list of premiums awarded at the recent State Fair. This is a slight mistake. The Cultivator for this month contains but a portion (not half) of the list—promising the remainder in the November number. Of the several agricultural journals published in this State, the *Genesee Farmer* is the *only one* which has given the entire and correct list of Premiums awarded at the late Annual Fair of our State Agricultural Society. Yours, &c. Errata.

It will be seen by the above, which we copy from the Rochester American of Oct. 13, that the Farmer, though a fifty cent paper, is not behind other agricultural journals in furnishing its readers important and appropriate intelligence. M.

Letter from S. W.

J. J. THOMAS' PRIZE ESSAY—RHODE ISLAND—ADAM ANTHONY'S FARM—PROF. JACKSON, &c.

MR. EDITOR :—I was sorry to read Dr. LEE's strictures on J. J. THOMAS' Prize Essay. I like occasionally a little hypercriticism, from pragmatical men, of the Rev. Sidney Smith School—but not from one who can so well afford to be generous towards others as Dr. LEE. He seems to think $100 a high premium for an essay of five close printed pages; yet, I presume to say, that on the other side of the Atlantic, 100 guineas has often been paid for a production much more theoretical, prosy, and common place, and so ambitiously full of the quibbles of the schools as to make the best friends of the writer blush for him—but of not a tithe the practical use of this condensed essay of JOHN J. THOMAS.

The Doctor demurs to the analysis given of a ton of barn-yard manure, because a difference in the feed of the animal will alter the result of the analysis, by which farmers may be led to believe that they are to obtain from their manure, matter not contained in the food of the animal. To this I reply, that no farmer can be thus mistaken, who has read Dr. LEE's editorials in the Genesee Farmer within the last year. Whenever I speak of Dr. LEE, his writings, and his practical experience, to farmers, I tell them that he is bringing in a "better hope," to the farmers of our wheat growing region, than they have heretofore known. If J. J. THOMAS is restricted in his analyses to one particular experiment, he certainly errs in good company; I believe Dr. Sprengel, Boussingault, and even that great prince of chemists, Liebig, have done the same thing. I have lately heard one of the most intelligent, masterly, farmers in New England, laugh at Liebig's explication of the magical attributes of Gypsum. And yet almost as good a farmer, Scotch Johnston, of our own Seneca co., N. Y., would subscribe in full to Liebig's theory. The cause of this discrepance in opinion among truly practical men, is found in the difference of their respective soils. The New England man's surface is barren sand; subsoil, stone and gravel detritus; Johnson's, an alluvial gravelly clay, resting on lime-stone—the subsoil, full of organic remains, is better than the worn surface. If J. J. THOMAS alludes not to the feed of the animals, whose manure is analyzed, neither does Liebig say that the effect of plaster will be nugatory on sand and detritus.—If Dr. LEE is more practically explicit in his teaching than the other Doctors, so much the better for his readers; in the end he will have his reward, provided always, that he practices that charity which is a great virtue in a great man.

Within the last month I have made a short trip to Rhode Island. That which struck me first in the altered appearance of vegetable life, as distinguished from our dry climate and lime-stone soil, was the extreme verdure of the grass, in September, on the borders of the salt sea.—When I advanced beyond the reach of the muriatic vapor, the sea and its treasures, fish manure and sea vegetables, all was sand and detritus, relieved by occasional swamps and peat bogs—the true element of relief to the hungry upland—as though nature in generous pity, had not left the bane without its antidote. The muck and peat of these swamps is now, with the aid of leached ashes, being made the means of a perfect renovation of a soil capable of improving under judicious culture, and of sustaining crops almost beyond belief.

Two miles out of Providence, I stepped from the sady road upon the thick set lawn of my early friend ADAM ANTHONY. When I was a boy, this farm, like the surrounding country, was a blowing sand. It is now, sub-soil excepted, one of the best farms I ever trod on; 250 bushels of leached ashes to the acre, have already been expended on it—millet and clover did the rest, with the aid of decomposed hog peat and the animal manure of the farm. Forty milch cows sleeping nightly on dry peat, make manure enough now to keep the farm in good heart; each cow has her separate stall; the milk sells at 14 cents the gallon, at the stable, to the Providence milk-men. ADAM says that the suckers and barren stalks cut from ten acres of Indian corn, soiled his forty cows six weeks this summer—thus saving him $150, which he otherwise must have paid for oil cake and shorts. This ten acres yielded at harvest 1400 bushels of ears, beside the stalks on which the ears grew. I might forgive an Englishman for disbelieving this account, but I myself have had a still better yield on a small scale, from that prince of the vegetable kingdom, Indian corn.

When Prof. Jackson, the State Geologist, visited this farm, his first words were, "What is your surface?" "Sand." "Your sub-soil?" "Coarse gravel, then stone and gravel."—"Your manure will leach." ADAM smiled that a learned academician should thus cling to a darling theory, when he saw its truth disproved, by full grown blooming facts.

I had no time to go beyond Woonsocket. I wanted to see the lime-kilns of Smithfield, as I had never yet seen a lime-stone in my native State, except the two little white rocks in Newport Harbor, which stick out like coral reefs from the sea—all else is grey whacke, slate, and granite. In passing through the swamps of Narraganset to Stonington, I felt glad that I went at rail-road speed; as here no farm, like that of ADAM ANTHONY'S, presented to the eye the fair spectacle of an oasis in the desert.

I am sorry to say that I had no time to attend our Seneca County Fair, held in this village on the 22d and 23d ult. I believe it was unusually

well attended the first day. The enterprising President, J. DELAFIELD, took the premium for the best farm, and well he has deserved it. He puts his own shoulder to the wheel, and keeps up in practice with the improvements of the age as insisted on by the books. GEO. FOX said the example of one true Quaker, would shake the country for thirty miles around. So will that of a true farmer—I mean one who loves his profession, not merely for the dollars and cents it gives for a single year, regardless and reckless of the future. S. W.

Waterloo, Nov. 10, 1846.

REMARKS.—We give place to the strictures of our friend "S. W." in regard to our correction of a few errors in the Prise Essay of Mr. John J. Thomas, in our last paper, because we had not the remotest idea of giving pain or offence either to the author or his friends. It is known to all that agricultural science is in its infancy, and that the only way to advance, is carefully to study and practice it, and promptly correct whatever research and experience shall show to be erroneous. In making these necessary corrections in a spirit of kindness, surely, a man must be unduly sensitive to be annoyed by the operation. We have perpetrated our share of blunders; and trust few have endeavored to profit more by the criticism of others.

In our January number we took the liberty to point out the palpable errors of Liebig in reference to the composition of manures. We said the same thing in regard to Mr. Thomas, because he is justly looked up to by thousands as good authority on agricultural subjects. Our criticism is a compliment to his standing as an agricultdral writer; for it is not our custom to waste time in correcting the vagaries of every one that spoils good paper in attempting to discuss what he does not understand.

Cattle.

THE number of neat cattle in the United States is very large; while the capacity of the country to grow and fatten this class of domestic animals is almost unlimited. A good farmer will study to improve his stock, by keeping no more than he can maintain in a thriving condition, and always breeding from the very best animals within his means and reach.

Bakewell, the celebrated English breeder of fine cattle, so improved the New Leicester stock, (the old long-horned Durham,) from an inferior race to one that took precedence of all others at the time of his death, in the year 1795. The race degenerated in the hands of his successors. Figure 1 represents a New Leicester Ox.

Mr. Charles Collins imported cows from Holstein or Holland, and by crosses and skilful management got up the Holderness breed, one of which, his bull, "Comet," sold for 1000 guineas at auction, in 1810. Closely connected with this breed are the "Short Horned Durhams." These cattle have been exceedingly popular for many years, although in unskilful and careless hands they do not maintain their supposed superiority, especially for dairy purposes.

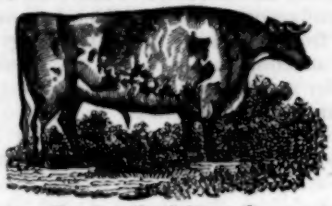

FIG. 1. *New Leicester Ox.*

The "Devons" are a smaller race, of a good figure, very active, and uniformly of a beautiful deep red. They are not large milkers, although many contend that their milk makes up in quality what it lacks in quantity. Figure 2 is a good likeness of a Devon cow.

FIG. 2. *Devon Cow.*

The Hereford breed is beginning to be known and highly esteemed in this country by the importations of Messrs. Corning and Sotham, of Albany. This herd is now, we believe, the exclusive property of the last named gentleman.—The Herefords are a large, heavy race, and said to be easy to take on flesh, and good milkers. The color is red, with more or less white under the belly, on the flanks, and face. Figure 3 is a fair likeness of a Hereford Cow.

FIG. 3. *Hereford Cow.*

There are several varieties of Scotch and native cattle, which, for ease of keeping, making working oxen, for dairy purposes, and the shambles, are hardly inferior to the best English breeds. The productive value depends, in a good degree on the way in which they are treated. No animal can be as profitable with bad management; while good judgment, and close attention will do much to improve an inferior race.

To relieve the oppressed is one of the most glorious acts. It is in some measure doing the business of God and Providence.

Potato Cholera.

Mr. Editor:—I am inclined to think that the caption of this article is the best definition of the Potato Rot, that can be suggested. All my observations indicate that it is the result of atmospheric influence, and is an epidemic disease, and results from a diseased leaf, (the lungs of the plant,) affecting the bark and sap, causing an unhealthy state of the blood or circulating juice; commencing with a mildew or rust—a living vegetating fungus—a crisped decaying leaf—a loose spongy vascular stem, with sufficient vitality to convey the virus to the tubers of the plant. Like the cholera, the cause is beyond discovery, and therefore beyond prevention. Of the thousand speculations on the subject which are as prolific, as of times past was the *chess* agitation, not one is worth a straw. No theory in application has succeeded. Wet ground, dry ground—early and late planting—liming, ashing and salting, insects, &c., &c., all share the same fate. Even the proposition that the plant had arrived to the maturity of its age—passed the zenith of manhood, and is now in its second childhood and decay, and would require renewing from its proper seed, proves entirely fallacious.

I have this year cultivated eleven varieties, now four years from the seed, raised by Mr. Onderdonk, of Greece. They were planted on dry ground, and not over stimulated with manure—all of which were as badly diseased as any of the old varieties. My brother, H. N. Langworthy, of Irondequoit, has arrived at the same result, from a large number of kinds that he is experimenting upon. I cultivate on my farm the Ox Noble, Round Pink Eye, Flesh Color, Old Red, Mercer, and Merino; all are more or less affected, (the Mercers most,) except the Merinos, they were entirely exempt.

To my mind, sir, it is clearly attributable to the season, or atmospheric influence, for it can hardly be supposed that a new insect could come into existence and prevail in Europe and America simultaneously: Nor can the breaking of the sprouts as some writers assert, have come into use all at once in the two hemispheres: Nor can the hundreds of varieties now in cultivation in the world all be of the same age, and all require renewing at the same period.

We were not sensible of a change in the atmosphere during the cholera season, neither by our senses, nor by the most searching chemical analysis; yet how powerful its effects—how fatal—how devastating! Why may not this inscrutable vegetable disease be attributable to some malign influence on the air, as well as the all dreaded cholera? Like other epidemics affecting man and beast, it will have its period and pass off, perhaps, forever.

There is nothing new under the sun—no permanent new condition of things can take place; the laws of the Creation are perfect and immutable and equal to all contingencies. There is no need nor no example of a radical change in the law, or provisions of nature—various temporary calamities are the results of some accidental cambinations, which neutralize themselves and return to their primitive state.

Shall we abandon the propagation of so valuable and wise a provision for the sustenance of the animal creation, in consequence of a partial failure for a few seasons? Good sense, and a reliance in the wisdom of Creation prohibits it.

L. B. Langworthy.

The Farmer.—His Position, Responsibilities, and Duties.

NUMBER FOUR.

The farmer above every other class in the country, seems to forget that knowledge is valuable as an instrument in his calling, and as an auxiliaery to him in his every-day operations.—The idea prevails to a very great extent, that any body can cultivate a farm—that it is purely mechanical, demanding physical strength alone—and that he who is strongest in body, and can best endure toil, is, as a matter of course, the best fitted for a farmer. This opinion, so prevalent among agriculturists themselves, is at once humiliating to their intelligence, and beyond a doubt, degrading in its influence upon the profession. The time has been, and still is, that a man is ridiculed if he attempt to study, and educate himself in preparation for a cultivation of the soil. It is not to be disguised that the great mass look upon book-farming, as it is styled, with contempt. They seem to regard farming to be simply plowing, sowing and reaping—that manual labor is the main element in it, and that books and the teaching of books can have nothing to do with it. Nothing can be more wide of the truth. No calling demands the exercise of more discrimination—more critical and analytical thought and reasoning—more calculation, and close comparison of cause and effect—than agriculture; and none is better calculated, if rightly pursued, to develope and mature the intellectual faculties, and to give them full and enlarged action. Instead of selecting, as is now the case too generally, the dullest and the most stupid of the family for farmers, the brightest in intellect, quickest in perception, and the most commanding for talent and mental power, should be chosen, and when selected, he should be thoroughly educated for the business—indoctrinated by close study, connected with hard labor, into the theory and practice of tilling, on correct principles and in the best manner, the soil. How negligent, how lamentably negligent, have the farmers of this country been on this subject; and how bitterly have they felt the consequences. When the bright, active, intellectual boy, shall be placed upon, and educated for the farm, in-

stead of being placed in a law office, or put behind a counter, then shall the farmers not be dependent on other pursuits for their law makers, their judges, orators and statesmen, and not till then.

There is nothing inherently degrading in the cultivation of mother earth—nothing to induce mental imbecility or ignorance—nothing in labor in the open fields depressing to the intellect or calculated to crush or check the expansive power of the soul—but quite the reverse. Toil, amid the beauties of nature, with the lovely as well as mighty works of the omnipotent all about, is invigoratting alike to mind and body—inculcating reverence, love and adoration to God, and knitting firmly the texture and power of intellect, as well as the physical frame-work of the man.

The earth which he tills—the crops which he gathers—the flocks which he tends—open to the study of the farmer, a wide field; each present numerous subjects for study, reflection and experiment—volumes richly stored with matters for the investigation of the curious, and which will employ a life time to fully digest and comprehend. It is not true that the farmer has no occasion for his intellect in the pursuit of his calling; and quite as unfounded and more deleterious in its consequences, the idea that he needs not to be educated, or learned in the sciences—that he need not to study and become wise and intelligent. A knowledge of the nature of soils—their preparation for and adaptation to the growth of crops—of the influence and exhausting nature of grain growing to the soil, and of the different effects of different grains—of the influence of heat and cold, light and darkness, on the growth of the food upon which plants feed, whether of earth or air, and of the chemical changes which take place in their germinative growth and maturity—of the best supplies for exhaustion, and the best combinations for, with their appropriate application of, manures—of the nature and remedies of the diseases common to domestic animals, &c., &c. I say a knowledge on the points above indicated is, and must be, of the highest practicable value to the farmer. Indeed it is indispensable to him, in the intelligent pursuit of his business; and in them we have subject for study, for years of patient investigation, for continuous and repeated experiment. They are not to be learned by simple practice in tilling the soil—nor by observation disconnected from an understanding of scientific principles, however close and keen the attention. They should form a part of the *education*, the mental acquisitions and discipline of the youth before he grows up and assumes the actual direction of the farm.—I cannot see how else we are to have scientific farmers. Few men, comparatively, will begin to acquire the necessary knowledge to make them really enlightened cultivators of the soil, if they have grown up to manhood in ignorance or without attention to it; few have the time, and less the patience and close application so necessary in the acquisition of the principles and detail of science. But let them once be learned, once fixed in the mind, and then the every-day practice, the continued observation, the daily routine of the farmer's life is continually calling up, applying and rendering them subservient to good and useful purposes. I know a man can make a farmer, and in some instances a good one, who has nothing of the knowledge above alluded to; but it is, I imagine, equally true, that, in nine cases out of ten, he who is lacking in such acquirements, will gather but scanty crops, comparatively, and fail to obtain the full equivalent for his labor;—his farm will yield less, demand more labor and manure, and sooner become exhausted, while he himself will plod on in life a mere cypher—a simple laborer, a kind of free slave to some more crafty or wiser neighbor.

Knowledge is power,—whether applied to the productions of the green and fruitful earth, or to moral and intellectual achievements.—Knowledge is happiness, too, whether it be possessed by him who toils in the field, and studies nature in her own magnificent store-house of carpeted earth and outspread heavens, or by him who revels amid the wonders of science in his closet. Knowledge is the means of doing good, whether it be applied to an increase of the productions of the farm—and which form the sustenance of mankied—or to the moral advancement of the community in which we live; and all are bound to seek it, and all are culpable who have the means and fail to attain it. We cannot measure our full intellectual and moral stature, nor come up to the correct standard of duty, if we fail in storing our minds with information, which will enable us to grow more grain, produce more of the necessaries of life, and at the same time fit us for the enjoyment of an elevated, rational, and enlightened social intercourse; and surely God will hold us all, farmers and others, to a strict account for the improvement of the means of advancement which he has placed in our hands or within our reach. We were not placed on the earth to be dolts. We each and all have positive, active duties to perform; nor did the Almighty give us our rich and beautiful farms to remain uncultivated—nor what is in principle the same, to have them half cultivated. We cannot, if we would, shake off responsibility, in the manner in which we use our money, our time, or our farms; and if the Lord has given to us that best of all gifts, children, it but adds to our responsibility, and we shall not be accounted innocent if we fail to give them the proper moral, intellectual and physical culture. But I see I am entering a field too broad to be traversed in this paper—and as I have much to say on the subject of education before I am done, I dismiss the subject for the present.

Penn Yan, Nov., 1846. D. A. Ogden.

To the Cultivators of the Soil in Western New-York.

Fellow Laborers:—The present number will close another volume of our agricultural journal, and it is for us to say whether it shall be continued or not—and I feel confident that there is not any of us, who have been its patrons the past year, but what will answer promptly in the affirmative. It is one of the best, and the cheapest agricultural journal now published; and it is with pleasure that I can say I think there is not one of its present readers who would wish to be deprived of the satisfaction and benefit of perusing its pages—and especially the youth. Men without knowledge are mere machines, and knowledge is very slowly obtained without reading.

From an intimate acquaintance with the Editor and Publisher, and the price of other similar journals, I know that the present circulation of the Farmer, at its present price, does not afford a sufficient remuneration for its publication.—Yet they do not wish to increase the price, fearing that that would curtail its circulation and diminish its usefulness. But could its present subscription list be doubled it would afford ample remuneration for its publication, and extend the bounds of its beneficial influence; and I feel confident that by a little exertion during the coming winter, the numerous friends of the Genesee Farmer can more than double its readers. And I would respectfully suggest to all who take an interest in procuring subscribers, that we pay the 50 cents for each and every one which we forward—for at that price it is certainly as cheap as we can desire it to be; and the few cents in reduction which are saved by taking a few in company, is a mere trifle to each individual, but when put together, will do something towards defraying the expenses of publishing.

I annually forward several names, and intend in future to increase my exertions—knowing that by so doing I extend my usefulness—but I always pay the 50 cents for each one, and I think that I cannot make many of my young friends a better New Year's present than one year's reading of the Genesee Farmer.

Yours respectfully,

A Plow-holder.

Monroe Co., Nov. 1846.

When a crack is discovered in a stove, thro' which the fire and smoke penetrate, the aperture may be readily closed in a moment, with a composition consisting of wood ashes and common salt, made into a paste with a little water, plastered over the crack. The effect is equally certain whether the stove be cold or hot.

Diet Bread.—One pound of flour, one pound of sugar, and nine eggs; finish as directed for sponge cake.

Encouragement.

During the publication of the present volume of the Farmer, we have received numerous letters, from all sections, speaking in the highest terms of its merits and usefulness. Such evidences of approbation have been truly encouraging, but we have hitherto refrained from publishing matter of this character, emanating either from individuals or the public press. We make less pretensions to perfectibility than some of our cotemporaries—albeit we perhaps have as many assurances of approval. We give the subjoined communications, recently received, because they contain some ideas worthy of thought. The first was not intended for publication, but we have no doubt our friend will pardon the liberty taken in giving it to our readers: M.

Dear Sir:—Enclosed I send you one dollar in payment for your excellent paper, the Genesee Farmer, to the present year, and for '47 also. I have been a subscriber for the "Farmer" for several years, and think I receive every year more benefit than ten times the cost of the paper. We have a club here, that was formed last winter, with something over fifty names* for your paper, which I am in hopes of not only seeing all renewed, but additions made thereto, for the coming year; and, as far as my influence extends, shall lend it cheerfully to obtain them. We have an excellent soil here, for wheat and clover, and as our land is in rather a new state in this section, (the Reservation,) shall look for good results for time to come.

In haste, yours, &c, G. C. Sprague.

Castile, Wyoming Co., N. Y., Oct., 1846.

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* We have about 70 subscribers, in all, at Castile; and a large number at each of several other Post Offices in Wyoming County.—Pub.

Mr. Editor:—As a subscriber to your valuable paper, I need not say that from month to month I peruse its pages with not a little interest and satisfaction. Much I find that is worth remembering, and more that is worth practising. I regard it as of the highest importance to the tiller of the ground—to him who really earns his bread by the sweat of the brow—to have a paper devoted exclusively to his interests, from which he can learn the experience of others of the profession, or in it record his own for the benefit of others. It is a medium for the interchange of thought and feeling, which may not be lightly prized by any of us. And yet, great as are the advantages to be derived from such a publication, many there are among us, and some successful farmers, too, who go a "dead set" against "book farming," as they term scientific agriculture. This is an evil, however, which, like many others, is destined soon, I trust, to be among the things that were. Men cannot always resist the truth and close their eyes against the light, especially if such a course be adverse to their true interests. Circumstances will not always allow them to plod on in the foot-tracks of their fathers.

As the Medical Practitioner encounters, from year to year, new obstacles—new forms of disease, requiring close investigation and different treatment—so the circumstances in which the farmer is placed changes from time to time. He, too, has obstacles to encounter. The soil from which, for years, his wants have been supplied, seems to tire or grow slack, and refuses to yield its substance. Where once abundant crops repaid his toil, sterility now denies even an ordinary yield. From year to year he witnesses the encroachments of various weeds, and with deep regret beholds his scanty crops cut short by the ravages of the insect tribe. Such reverses usually set men to thinking and inquiring. They are made willing to learn. Their repugnance to agricultural publications—to "book farming"—is removed, and henceforward they are found among the believers in the science, as well as the practice, of agriculture.

I shall, at a convenient time, avail myself of the privilege of asking some questions relative to agricultural matters, for I trust I am, on no subject, unwilling to learn.

Dansville, Oct. 17, 1846. Yours, &c. M.

HORTICULTURAL DEPARTMENT.

BY P. BARRY.

The Strawberry Question.

The Horticultural publications of the day are besieged with drivellers on this subject. We dread opening one, lest three or four pages of twaddle about "stamens and pistils" should stare us in the face.

We think that Mr. Longworth himself must have enough of the subject by this time. The last number of Hovey's Magazine contains a discussion between Mr. Downing's nursery foreman and Mr. Hovey. The former states that, in 1845, he examined a bed of Hovey's Seedling, at the Highland Nurseries, having both stamens and pistils fully developed, and produced one of the most uniform and handsome crops of fruit he ever saw, and that, too, at the distence of one hundred yards from the regular strawberry plantation or strawberry plant of any kind. To this Mr. Hovey replies: "We unhesitatingly say that *every plant*, which Mr. Saul or Mr. Downing *has found in their beds of Hovey's Seedling with stamens, is not the true kind.*"

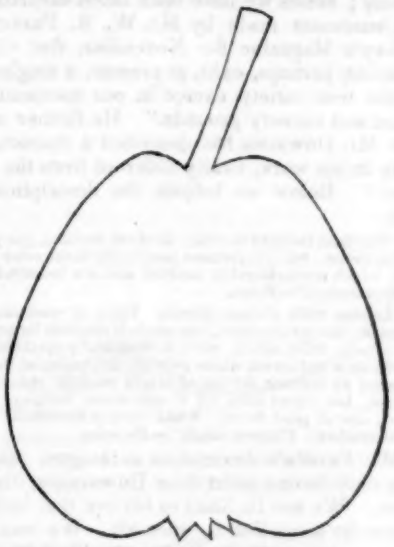
This is one point, at least, explicitly stated.—To our mind there is no doubt but that Hovey's Seedling, as Mr. Hovey says, "was an imperfect flowering variety, is so, and will remain so." The course, then, to be pursued in reference to its culture, is to plant it near others with staminate or perfect flowers. A fair crop cannot be obtained otherwise; this we have been convinced of by experience.

Osband's Summer Pear.

('*Summer Virgalieu*' of the Rochester Gardens.)

In our September number we noticed some specimens of this Pear from Mr. Zeka Burr, of Perinton, who, by the way, is industriously collecting fine varieties of fruit. We also received specimens at the same time from Judge Chapin, of this city, who first brought it to Rochester some 8 or 9 years ago, from Macedon.—He found the fruit accidentally in the market, and seeing it was the best he knew, of its season, he procured grafts the following spring, and now has one of the finest trees in the country. He says it is a regular and fine bearer. It ranks among the best August Pears in cultivation. We are glad to find the following history and description of it in the Nov. number of the Horticulturist from the pen of Mr. W. R. Smith, of Macedon:

Osband's Summer Pear, (*Osband's Favorite*, of some.)—This beautiful and excellent native pear has acquired considerable notoriety in this vicinity, and is destined, without doubt, to take rank with the best of its season.—It is in perfection previous to the Dearborn's Seedling, and so far as I can ascertain, subsequent to the Bloodgood.—It is a fine grower, and bears young and well. So strongly does it resemble the White Doyenne in outline and flavor, that it has been known in Rochester for several years as the "Summer Virgalieu," a name obviously improper, as the Doyenne d'Ete, a distinct fruit, has been for some time described, and extensively circulated. The description of the fruit under consideration so nearly corresponds with that of the Doyenne d'Ete, that some intelligent cultivators are inclined to think them identical. But aside from the facts in the case, it may be remarked as conclusive against this opinion, that the Osband's Favorite has a large open calyx, with reflexed segments, while the Doyenne d'Ete has "calyx small, closed."* The former, too, appears to have much more of color than the latter.



Osband's Summer Pear.

All doubts on this point will, I think, be removed by reference to the following history, which I obtained from G. Osband, a Methodist minister, in good standing, and every way worthy of confidence. Early in the settlement of this part of the state, a small nursery was planted by Pardon Durfee in the vicinity of Palmyra, Wayne Co. A public road was subsequently laid out through the premises, and a part of the trees in consequence removed. During this labor, the father of my informant, accidentally passing, was accosted by the proprietor, with, "here, I will give you this," handing a pear tree about two feet in height, with branches forking out near the ground. On reaching home, the tree was divided through the roots, and the two parts planted. Here one of them produced abundant crops for many years, and finally died, probably from the 'blight.' The other was soon removed to a farm in the north part of this town, (Macedon,) and last year I gathered a few specimens from it, the last which the same potent enemy will allow it to produce. The name given is at the suggestion of the family who brought it into notice.

Size, scarcely medium, about two inches long, and two in diameter. Form, obovate, resembling a White Doyenne. Skin, smooth, shining, clear yellow, profusely marked with small green dots; well ripened specimens have a clear red cheek, slightly russetted at the crown. Stalk, an inch long, rather stout, a little knobbed, not deeply inserted in a cavity of four unequal sides. Calyx, large, open, segments reflexed. Flesh, white, a little coarse, juicy. Flavor, rich and sugary, with a slight musky perfume. Ripe from 5th to 10th of 8th mo. (August.) Wm. R. Smith.

Macedon, 8 mo. 1846.

* See Downing's "Fruits and Fruit Trees of America."

In consequence of the space occupied by the Title Page and Index to this volume, which are given in the present number, several interesting articles, intended for publication in this department, are necessarily deferred. M.

Van Zandt's Superb Peach.

(*Waxen Rare Ripe*, of some catalogues.)

This Peach originated in the village of Flushing, Long Island, in the garden of Mr. Van Zandt. It is one of the most beautiful peaches known, and of good quality. The nurserymen of Flushing, Mr. Prince and others, have propagated it for a long time, and disseminated it widely; hence we have been much surprized at the statement made by Mr. W. R. Prince in Hovey's Magazine for November, that "there does not, perhaps, exist, at present, a single tree of the true variety except in our specimen orchard and nursery grounds." He further states that Mr. Downing has described a spurious variety in his work, totally different from the genuine." Below we subjoin the descriptions of both:

"The form inclines to oval; the flesh melting, juicy, and of fine flavor; but the greatest peculiarity is the color of the skin, which is considerably mottled, and of a beautiful waxen appearance."—*Prince.*

"Leaves with globose glands. Fruit of medium size, roundish, the sature slight, but one-half the fruit larger than the other. Skin white, with a beautifully sprinkled red cheek, on a yellowish white ground, the union of the two softened by delicate dotting of bright carmine red. Flesh whitish, but tinted with red at the stone, melting, juicy, sweet, and of good flavor. Stone deeply furrowed. First of September. Flowers small."—*Downing.*

Mr. Prince's description is meagre, and differs only in one point from Downing's, that is, *form*. We are inclined to believe that both describe the same Peach, after all. We would be sorry to have to believe that the Flushing nurserymen have been selling a spurious article under this name so long, with the original tree before their eyes.

Duration of Varieties of Fruit.

Mr. Editor:—The following extract was taken from the fragment of a leaf of an old Almanac, published as early as the year '34 or '35.—I do not know who was the author of it. The Almanac was, I believe, one of the earliest "Agricultural Almanacs" published in this State. I would consider it a great favor, if you or any of your readers, or correspondents, would furnish the whole article, or inform me where it can be found. If not, will not some one furnish another article on the same subject, for the "Farmer," either in confirmation, or refutation, of the doctrine therein advanced?

"No kind of apple, now cultivated, appears to have existed more than two hundred years; and this term does not at all exceed the duration of a healthy tree, or of an orchard when grafted on crab-stocks, and planted in a strong tenacious soil. From the description which Parkinson, who wrote in 1629, has given of the apples cultivated in his time, it is evident that those now known by the same names are different, and probably new varieties; and though many of those mentioned by Evelyn, who wrote between thirty and forty years later, still remain, they appear no longer to deserve the attention of the planter. The 'Moll,' and its successful rival, the 'Redstreak,' with the 'Muste' and 'Golden Pipin,' are in the last stage of decay, and the 'Stire' and 'Foxwhelp' are hastening rapidly after them.

"All efforts which have hitherto been made to propagate healthy trees of those varieties which have been long in cultivation, have, I believe, been entirely unsuccessful.—The grafts grow well for two or three years, after which they become cankered and mossy, and appear what I consider them really to be, parts of the bearing branches of old diseased trees."

The first article in the last number of the "Farmer," touches on the same subject, but I would like to see it more expanded, and the doctrine more fully carried out. It is to me a subject of much interest, as affording matter for profitable reflection, as well as for practical application. H.

Fairport, Nov. 11, 1846.

Note.—This subject has been, of late years, pretty thoroughly investigated by the most distinguished Horticultural writers, both of Europe and America.

The late Thos. Andrew Knight, of London, one of the most eminent Horticulturists of his day, was, we believe, the first who attempted to establish the theory that *a variety will not exist in a healthy state longer than the parent tree from which it was propagated.* He supported his theory by showing that certain varieties, that had once flourished in certain localities, had become "subject to the debilities and diseases of old age."

Mr. Wm. Kenrick, of Boston, author of the "American Orchardist," adopted Mr. Knight's views of the subject, and endeavored to sustain them by showing that many of the old fruits, such as the Doyenne (Virgalieu,) Brown Beurre, and other Pears, had ceased to flourish in this country, owing to these "debilities and diseases of old age."

In refutation of this theory it has been shown that many of the oldest varieties of which we have any record are, at this day, producing as perfect and as fine fruit, both in Europe and on this continent, as they have ever done at any former period. The White Doyenne, or Virgalieu, it is well known, is as vigorous and as healthy, and produces as large crops and as fine fruit, *now*, in Western New York, as it has ever done any where, at any period within the memory of "the oldest inhabitant;" and it was the most prominent subject cited by Mr. Kenrick to sustain his "decay" theory. The "English Golden Pippin" apple, cited by Mr. Knight, as illustrating his views, is said by English pomologists of the present day, to be as vigorous and productive, in many parts of England, as it ever was.

The apparent decay of varieties, we think, has been clearly demonstrated to be owing to the peculiar circumstances connected with their cultivation. The healthy, productive character of many fruits, in the interior of our country, that do not succeed at all on the sea board, is an apt illustration of this. Careful or uncareful culture, too, has a great deal to do with the duration of varieties. But, aside from the facts of the case, we think that the theory of "limited duration" is quite incompatible with the principles of vegetable reproduction. We can see no reason why a healthy scion, taken from an apple or a pear tree 200 years old, and inserted on a young seedling stock, should survive *only* as long as its 200 year old parent. We refer our correspondent, "H.," and others who may wish to investigate this subject, to the elaborate and satisfactory article in the "Appendix" to Dowings's "Fruit and Fruit Trees."—Ed.

"Swan's Orange" or "Onondaga Seedling" Pear.—We are much obliged to E. W. Leavenworth, Esq., of Syracuse, for the following item of information respecting this fine Pear. It shows how little reliance should be placed on the reports of the multitude of *seedling* or new fruits which we hear of around the country. Mr. Leavenworth says: "I have traced all the 'Onondaga Seedlings' about here to the original tree of Henry Case, Esq., of Liverpool, and by a letter just received from that gentleman I learn that he got his tree from a graft cut by him in 1806, in Farmington, Ct., from a tree standing on the premises of the late Fisher Curtis, of this town."

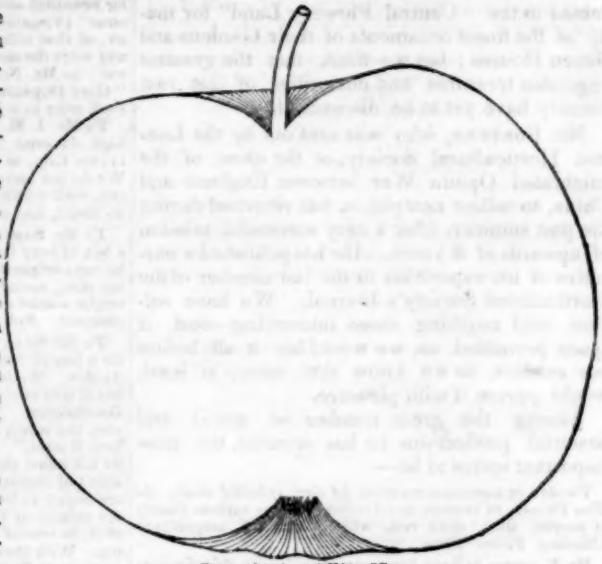
It appears from this that the Odondaga is an *old* fruit, but it is a first rate one, and under any name worthy of extensive culture. We shall yet most likely identify it.

There is nothing which gives to beauty a greater finish than the look of intelligence, which makes the eye appear as the index of the soul.

Outline and Description of two fine Autumn Apples.

Dyer, (*Fig.* 27.)—This is a native of Rhode Island—said to have been brought into notice by the Messrs. Dyer, Nurserymen of Cranston.—

Size, large; the figure given here is from a medium sized specimen.—*Form*, roundish or globular, sometimes slightly ribbed. *Skin*, pale yellow, fair and smooth. *Calyx*, small, closed, in a shallow basin, generally somewhat plaited and uneven. *Stalk*, about an inch long, projecting beyond the surface of the fruit, rather slender, inserted in a smooth cavity. *Flesh*, white, crisp, and abounding with a sprightly, rich sub-acid juice. As an eating apple we think this scarcely surpassed by any other of its season.

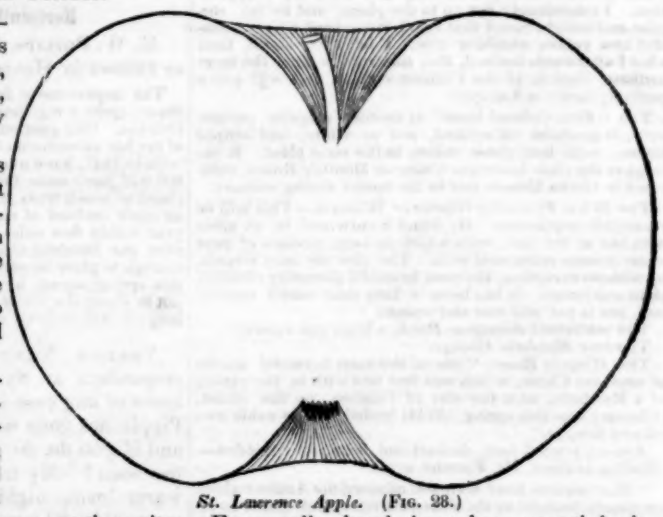


Dyer Apple. (*Fig.* 27.)

The tree has a fine, upright habit, grows vigorously, and we think, from what we have seen of it, is very productive. We have a tree in our grounds, sent us by Mr. Kenrick six years ago. It bore last season a few, and the present season a fine crop. It is noticed in the "Fruit and Fruit Trees of America," page 83. Mr. Downing says that Mr. Kenrick has confounded this with the "*Pomme Royal*" of Connecticut, which is a distinct winter variety. Ripe September and October.

St. Lawrence, (*Fig.* 28.)—This Apple was brought to this county, a number of years ago, from Montreal; of its origin, or how it came there, we know nothing.

In beauty of appearance, as well as in quality, we think it unsurpassed by any of its season. It succeeds admirably in this section, and will, we have no doubt, in every part of the country. It begins, now, to be pretty widely disseminated in our orchards.



St. Lawrence Apple. (Fig. 28.)

Size, medjum to large.—*Form*, roundish, regular, a little flattened at both ends.—*Skin*, smooth, covered with stripes and stains of red and crimson. *Stem*, half an inch long or over, inserted in a deep, smooth cavity. *Eye*, small, closed, in a deep, smooth basin. The streaks of red run into the cavities of the stem and eye, like regular delicate penciling. *Flesh*, white, stained slightly with red, very tender and juicy, melting in the mouth. Flavor delicious; sub-acid. September to October.

Northern Spy Apple.—In reply to numerous inquiries as to where this apple can be procured, we would say that in this city they can be had of J. H. Watts, Esq., who has purchased most of the crop of Mr. Hand, of Mendon. They have been uncommonly fine this season, and Mr. W. informs us he has already sold about 40 barrels, some to go to Europe, and others to various parts of this country. His price is $2 50 per barrel. If any one has doubts about the surpassing excellence of this fruit, let them procure a few to eat during the coming winter or next spring.

Splendid Plants from China.

Europe and America are already largely indebted to the "Central Flowery Land" for many of the finest ornaments of their Gardens and Green Houses; but we think that the greatest vegetable treasures and curiosities of that vast country have yet to be discovered.

Mr. Fortune, who was sent out by the London Horticultural Society, at the close of the celebrated Opium War between England and China, to collect new plants, has returned during the past summer, after a very successful mission of upwards of 3 years. He has published a narrative of his expedition in the last number of the Horticultural Society's Journal. We have seldom read anything more interesting—and, if space permitted us, we would lay it all before our readers, as we know that some, at least, would peruse it with pleasure.

Among the great number of novel and beautiful productions he has secured, the most important seems to be—

Twelve or more *new varieties of that splendid shrub, the Tree Pulony*, of various novel colors, such as various shades of purple, lilac, deep red, white, &c. A magnificent *Climbing Yellow Rose.*

Mr. F. seems to have been enraptured with this discovery, and no wonder. He says:

"On entering one of the gardens on a fine morning in May, I was struck with a mass of yellow flowers which completely covered a distant part of the wall; the color was not a common yellow, but had something of buff in it, which gave the flowers a striking and uncommon appearance. I immediately ran up to the place, and to my surprise and delight found that I had discovered a most beautiful new yellow climbing rose. I have no doubt, from what I afterwards learned, that this rose is from the more northern districts of the Chinese empire, and will prove perfectly hardy in Europe."

The "Five Colored Rose" is another singular production; it produdes elf colored, red or white, and striped blooms with both these colors, in the same plant. It belongs to the class known as China or Monthly Roses, cultivated in Green Houses and in the border during summer.

The *White Flowering Glycine or Wistaria.*—This will be a valuable acquisition. He found it entwined in an arbor with one of the blue, with which its long racemes of pure white flowers contrasted well. The blue we may remark, is, without exception, the most beautiful flowering climbing plant cultivated. It has been a long time under cultivation, but is yet still rare and scarce.

The celebrated *Shanghae Peach*, a large fine variety.

The *true Mandarin Orange.*

The *Weigela Rosea*, "one of the most beautiful shrubs of northern China, which was first met with in the garden of a Mandarin, near the city of Tinghae, on this island, (Chusan) was this spring, (1844) loaded with its noble rose colored flowers."

Azaleas, several new, distinct and beautiful varieties.—Alluding to these, Mr. Fortune says:

"Most persons have seen and admired the Azaleas which are yearly brought to the Chiswick fetes, and which as individual specimens surpass, in most instances, those which grow and bloom on their native hills; but few can form any idea of the gorgeous and striking beauty of these Azalea-clad mountains, where on every side, as far as our vision extends, the eye rests on masses of flowers of dazzling brightness and surpassing beauty."

The most gratifying success has attended the transmission of the plants, as it appears that out of 69 cases sent, only *two of value* have been really lost to the country. As many of the finest species are from the northern districts of China, and consequently hardy, we may hope to see them introduced to the gardens of this country in a year or two. Their propagation will no doubt receive the utmost attention of the most skilful English cultivators.

Acknowledgements.

We are indebted to Mr. H. P. Norton, of Brockport, for beautiful specimens of "Gray Doyenne and White Doyenne" (Virgalieu) Pears, from the garden of Mr. H. R. Roby, of that village. They were received in fine condition, and were the most perfect specimens we have seen this season; as Mr. Norton says "not easily surpassed." The "Gray Doyenne" is comparatively little known here. We shall refer to it fully hereafter.

To Mr. J. M. Whitney, for a specimen of a fine, rich, high flavored little Pear from the garden of John Williams, Esq., of this city. It is in eating now, Nov. 10.—We do not know its name. It seems to be a valuable variety, well worthy of a place in a good collection. We can, no doubt, find out its name next season, by seeing it bear.

To Mr. Samuel A. Cuttlebeck, of Olcott, N. Y., for a box of very beautiful and pleasant eating apples, which he says originated in that neighborhood. It is about medium size, roundish. Skin, pale greenish yellow, with a bright scarlet on the exposed side. Flesh tender, juicy and pleasant. Sub acid. Sept. and Oct.

To the Shaker Society of Groveland, Liv. county, for a box of fruit containing several varieties of Pears and Apples. We had a notice of these prepared for last month, but it was mislaid. The Pears were Virgalieu and Summer Bonchretien. The large russet apple is a spongy and poor sort, not worth cultivation. It is known as the "Cheeseboro Russet." The others seem to be good varieties: we do not know their names. They were picked too soon to admit of correct judgment being passed upon them. We are happy to learn that the society is embarking largely in the culture of the finest fruits They have fine soil, plenty of it, in one of the best fruit growing districts in the country. With their good taste and abundant means and all necessary facilities, we have reason to expect much from them.

To Mr. Reuben Norton, of Bloomfield, for a basket of "Melon" Apples, a most delicious autumn and early winter fruit. They are tender and delicate as Peaches, and one could eat almost as many of them.

Horticulture in Mississippi.

M. W. Philips, Esq., of Edward, Miss., writes as follows in Hovery's Magazine for Nov. last:

The improvement in fruits is rapidly progressing in this State: quite a rage has sprung up to market fruit to New Orleans. One gentleman within some ten or fifteen miles of me has an orchard of pear trees of several hundred, and will, in 1847, have over one thousand trees. Another this fall will have some three hundred. I can point to one orchard of peach trees that number over one thousand;—to an apple orchard of eight hundred, that was planted this year within four miles of me; my peach orchard numbers over one hundred trees, with over three hundred large enough to place in orchard, and over four hundred budded this spring;—and, by the by, I can show a bud that was put in about the 7th of June, that is now near three inches long; it will be large enough to remove by fall.

Yellow Newtown Pippin Apple.—A correspondent at Syracuse writes us—"Do you know of *any* case in which the Yellow Newtown Pippin has done well in Western New York, and if you do, do you know what the treatment has been? My trees do miserably in a rich, warm loam, highly manured. They are 14 years old, and never have produced but one or two good crops."

Will some of our friends furnish us with information in relation to this apples. We know of but a few cases where it is in bearing, in this section; in the most favorable of these, we believe, it produces poorly—at least cannot be said to "*do well.*"

We follow the world, in approving others, but we go before it in approving ourselves.

NEW SEED and IMPLEMENT WAREHOUSE.

GENESEE SEED STORE & AGRICULTURAL WAREHOUSE,

No. 10, Front-Street, Rochester, N. Y.

THE SUBSCRIBERS respectfully announce to the public, that they have opened the above establishment for the sale of GARDEN, FIELD, and FLOWER SEEDS, of all sorts—*Agricultural and Horticultural Implements, Machines, &c. &c.*

They intend to have always on hand, a complete assortment of all the articles wanted in this line by the Farmer and Gardener. No pains will be spared to procure articles of the best quality. No seeds will be offered but such as are undoubtedly fresh and genuine—raised in the best establishments of this and foreign countries. The implements will embrace all the newest and most approved kinds, from the best manufacturers in the country.

Fruit and Ornamental Trees, Shrubs, Plants, &c., will be furnished to order from one of the best establishments in the country—the well known MOUNT HOPE NURSERIES.

The principal conductor of this establishment has had many years *practical experience* in the business, in Rochester; and being well known to a large portion of the agriculturalists of Western New York, the undersigned hope, by devoting constant and careful attention to the management of their business, to merit and receive a liberal share of patronage. Farmers and others interested, are requested to call at the GENESEE SEED STORE.

RAPALJE & BRIGGS.

Rochester, Feb. 1, 1846.

Rochester Agricultural Warehouse.

BY THOMAS NOTT.

THE Subscriber having purchased the interest of Mr. JAS. P. FOGG, (late B. F. Smith & Co.,) in the Agricultural and Horticultural IMPLEMENT BUSINESS, takes this method of informing the Farmers of Monroe and adjoining counties, that they will find it to their advantage to call and examine his Stock of Farming Implements before purchasing elsewhere.

In his assortment may be found the following articles:—

Burrall's Patent Corn Sheller, price, $10.
Cultivators, price from $5 to $8.
N. C. Dayton's Gang Plow, for putting in wheat, $15.
Hatch's Seed and Plaster Sower, $25.
Delano's Diamond Plow, $7.
Massachusetts Sward C Plow with extra points, $7.
" Eagle and Eagle No. 25 (3 horse) Plow.
" Side-hill and Subsoil Plows, $9 to $15.
Straw Cutters, from $5 to $15.
Sanford's Straw Cutter, $15.
A complete assortment of Plow Points.
I. Grant's Patent Fan Mill, price $27.

A full assortment of *AGRICULTURAL IMPLMENTS, TIN AND WOODEN WARE*, and hundreds of other articles too numerous to mention. For sale cheap, by

THOMAS NOTT,
Front st., nearly opposite the Market.

Rochester, July, 1846.

Wanted Immediately!—A practical nurseryman, who understands his business thoroughly, to take the place of foreman in an established nursery in Cleveland, Ohio.

Satisfactory testimonials of *honesty and efficiency* will be required.

Apply immediately, (if by letter, *post paid,*) stating salary expected and other particulars, to P. BARRY,
Dec. 1. 1846. *Genesee Farmer Office, Rochester.*

Ellwanger & Barry's new Descriptive Catalogue for 1846 & 7 is just published, and will be sent *gratis* to all post paid applications.

Mt. Hope Garden & Nurseries, Rochester, Oct. 1, 1846.

Corn Shellers!—A first rate article, price $10, for sale at No. 10, Front-st. RAPALJE & BRIGGS.

Bound Volumes of the Farmer.

A few copies of Volume VI, bound, for sale at this office. Price 50 cents. Also, (after the 10th inst.) bound copies of Volume VII, 1846. Dec 1, 1846.

Agricultural Implements.

IN order to accommodate the subscribers to the Farmer, from whom frequent inquiries and orders for implements are received, I have made arrangements to supply the following articles:

Pitts' Thrasher and Separator,	price,	$150 00
The above, including Horse-Power,		250 00
Pitts' Corn and Cob Mill,		40 00
Seymour's Sowing Machine,		45 00
Sanford's Straw-Cutter,		15 00
Burrall's Patent Corn-Sheller,		10 00

Also, most kinds of Plows, Cultivators, &c., &c., at the usual prices. As my only object is the accommodation of *subscribers to the Farmer* who reside at a distance, (without fee or reward,) all orders should be post paid and accompanied with the cash. The implements will be carefully selected, and shipped per order. D. D. T. MOORE.

Farmer Office, Rochester, September, 1846.

Agricultural Almanac for 1847.

THE AMERICAN CULTIVATOR'S ALMANAC, edited by Dr. LEE, just published and for sale at this office. It is got up in good style—printed on new type and excellent paper, and illustrated with over 30 engravings.

TERMS.—$15 per 1000; 500 for $8; $2 per 100—or three dozen for $1. All orders, (post paid.) will receive prompt attention. Address D. D. T. MOORE.

Farmer Office, Rochester, Sept. 1, 1846.

FARMERS, CURE YOUR HORSES!

GEO. W. MERCHANT'S CELEBRATED

GARGLING OIL.

AN Invaluable Remedy for Horses, Cattle and other domestic animals, in the cure of the following diseases:

Fresh Wounds,	*Fistula, Sitfast,*
Galls of all kinds,	*Strains, Lameness,*
Sprains, Bruises,	*Sand Cracks,*
Cracked Heels,	*Foundered Feet,*
Ringbone, Windgalls,	*Scratches or Grease,*
Poll Evil, Callus,	*Mange,*
Spavins, Sweeney,	*Horn Distempar.*

Also a valuable Embrocation for diseases of the Human Flesh.

AVOID DECEPTION.—It is not generally known, that no means have been left unemployed by that class of persons who attempt to counterfeit every good medicine that has acquired public confidence, to mislead the public mind into the belief that their oil is the same as the Gargling Oil. Be not deceived, therefore, by such *knavery;* and be not satisfied except you find the marks of the *genuine* article upon the bottle.

One gentleman affirms that he cured a valuable horse of a *Windgall* which had become callous. Another says he has cured a fine horse of a *Sweeney* which nothing else would effect. Another has cured himself by the use of the Oil, of a *Rheumatism*, and in his family has used it for all complaints requiring an external remedy. Another who had it "on hand" says that he relieved himself immediately of *severe* and continued *pain*, resulting from the setting of a dislocated knee joint which every application made for twenty-four hours had failed to perform; he soon obtained sleep.

It has cured *Founders*, and is a common remedy for *Galls, Sprains, Bruises, Strains, Cramps, Weakness of the Joints and Limbs, Frozen Feet, Contraction of the Muscles, Scalds, &c.*, and if all the facts were told they are so remarkable they would probably not be believed.

For testimonials, synopsis of diseases, and mode of treatment, see pamphlet which accompanies each bottle.

☞ Sold at the ROCHESTER SEED STORE, and by Druggists and Store-keepers in the U. States and Canada.
☞ Also at the *GENESEE SEED STORE*, No. 10 Front street, Rochester.

Straw Cutters, *of all the most approved kinds,* used Western N. Y., for sale cheap, by

RAPALJE & BRIGGS.
No. 10, Front-st.

Wanted.—100 bushels Peach Stones, at the old Rochester Seed Store, nearly opposite the market.

Oct. 1, 1846. JAMES P. FOGG.

MARKET INTELLIGENCE.

Rochester Produce Market—Wholesale.

Wheat,	90		Pork, bbl,	10,00	11,00
Corn,	38	44	Pork, cwt,	3,00	3,50
Barley,	38		Beef, cwt,	2,50	3,00
Oats,	30		Lard, lb,	7	8
Flour,	4,25		Butter, lb,	10	14
Beans,	87½		Cheese, new lb.,	5	6
Apples, bushel.	18	25	Eggs, doz,	14	
Potatoes,	31		Poultry,	5	6
Clover Seed,	4,00	5,00	Tallow,	6	6½
Timothy,	1,00	1,25	Maple Sugar,	6	77
Hay, ton,	7,50	9,00	Sheep Skins,	38	50
Wood, cord,	2,00	4,00	Green Hides, lb	3½	
Salt, bbl,	1,12		Dry "	6	
Hams, lb,	8	9	Calf Skins,	8	

[*By Magnetic Telegraph.*]

New York, Nov. 26.—3 P. M.

The market for Flour was not very active. Sales being about 6000 or 7000 bbls., including 2000 Brooklyn Mills, at $5,25. The quotations to-day have been $5,18 *a* $5,25 for Michigan and Genesee, and $5,31 for Genesee in Store; $5,37½ being universally asked. There is not a great deal arriving, but the quantity piled up on dock is large. Some large receivers ask $5,50.

In Grain the movement has been small; a parcel of 2500 bush. mixed wheat was sold at $1,02, and 2000 do. fair $1,06.

Corn is dull and I hear of nothing done in good parcels. A lot of Southern new sold at 60 cts.; good yellow Northern is worth perhaps 73 or 75 cts.

Sales 15,000 bush. Rye at 76½ cts. in the slip, and 79 *a* 80 cts. delivered. Oats tend upward. Canal are worth 38 *a* 38½. Sales 2400 bush. Barley for export on private terms.

Pork is $8 *a* $9,75. The sales both of Beef and Pork are very limited. A small sale Utica prime mess Beef was made at $15,50.

Tallow is in good demand, but the supply is light. Prime is 9½ *a* 9¾.

Cotton is rather firmer to-day in consequence of Southern frosts.

The operations in heavy produce are much hampered by the high freights.

The Cash System—1847.

Our subscribers are informed that we shall adhere, as strictly as possible, to the CASH IN ADVANCE SYSTEM. All, therefore, who have not already paid for next year, should at once renew their subscriptions. After this number no papers will be sent, except to agents, those who have paid for 1847, and such others as we suppose wish to continue as permanent subscribers. We trust our friends will bear this in mind, and send in their orders as early as convenient.

To Post Masters, Agents, &c.

☞ POST-MASTERS and others who have generously lent us their aid, by obtaining and forwarding subscriptions to the current volume of the Farmer, are respectfuly invited to continue acting as Agents. We are already greatly indebted to you, gentlemen, for past favors—and a continuation of similar kindness will render us under renewed obligations.

Send Early.—Agents and others—(and we hope every subscriber will act as agent)—will please send in their orders for next volume as soon as possibly convenient. We wish to know, at an early day, how large an edition will be necessary, and thus avoid the expense of re-printing.

Monroe County Agricultural Society.

The Annual Meeting will be held at the Rochester Seed Store on the *second Tuesday of December*, (the 8th inst.) at 10 o'clock, A. M.

This Meeting will award the Premiums on Field Crops, &c., and choose officers for the ensuing year—1847. Let there be a full attendance of the Members of the Society.

JOHN H. ROBINSON,
December, 1846. *President.*

1847.] VOLUME VIII. [1847.

GENESEE FARMER,

A MONTHLY AGRICULTURAL AND HORTICULTURAL JOURNAL:

Illustrated with numerous engravings of

Improved Implements, Farm Buildings, Domestic Animals, Fruits, &c. &c.

THE PROPRIETOR of the Farmer gratefully acknowledges an INCREASE of over FOUR THOUSAND subscribers, since the commencement of the current volume. He considers this the most conclusive evidence of the merit and popularity of the work—and respectfully presents it to the friends of Improvement for their examination and patronage. Dr. LEE, its principal Editor, is at the head of the 'Western N. Y. Agricultural School'—and his ability, and the means at his command for obtaining and disseminating information relative to the Science and Practice of Agriculture, are unsurpassed by any agricultural writer in the country.—The Editor of the Horticultural Department, P. BARRY, Esq., (of the 'Mt. Hope Garden and Nurseries,') is one of the most experienced Horticulturists in the State.

Each number of the Farmer contains **Twenty-four large Octavo Pages**, and is illustrated with handsome and appropriate engravings. It is printed on new type and good paper. Since its enlargement from 16 to 24 pages, (in January, 1846,) it is universally pronounced THE CHEAPEST AND BEST PAPER OF ITS SIZE AND KIND IN THE UNION.

TERMS—**50 cents a year, in advance**; FIVE COPIES FOR $2; EIGHT FOR $3; THIRTEEN FOR $5. Any person sending us 13 subscribers, (remitting $5,) will receive an extra copy gratis.

Volume 8 will commence in January, 1847,—and all subscriptions should be sent in previous to that time, if convenient, in order that the publisher may determine how large an edition will be necessary.

☞ Specimen numbers sent gratis to all post paid applications. All friends of Agricultural and Horticultural Improvement who receive a copy of this Prospectus, are requested to Act as Agents for the Farmer. Subscriptions may be sent (post paid,) at the publisher's risk.

Address D. D. T. MOORE,
NOVEMBER, 1846. *Publisher, Rochester, N. Y.*

☞ Editors will greatly oblige us by copying the above Prospectus; and to those who do so, (sending us a number of the paper containing it,) we will send one or more copies of the Farmer, without an exchange.

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Removal.

The Farmer Office has been removed to *Talman Block, on Buffalo street*, nearly opposite the entrance to Arcade Hall. Our new location is central, and convenient to those having business to transact with the establishment.